

## REMARKS

The present application includes claims 1-11 and 13-21. Claims 1-11 and 13-21 have been rejected by the Examiner.

Claims 1, 6-11, and 13-16 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Philips (U.S. Pat. No. 6,213,947) in view of Golland (U.S. Pat. App. Pub. No. 2004/0006271) and further in view of Bertora (U.S. Pat. App. Pub. No. 2005/0004459). The Applicant respectfully submits that the claims of the present application are allowable over Philips in view of Golland and further in view of Bertora for at least the following reasons.

As previously discussed in the last response, while Philips applies codes to transmitted ultrasound signals (Abstract; col. 3, line 51 – col. 4, line 10), the received signals in Philips are clearly beamformed (Fig. 1; col. 4, lines 29-31 and lines 53-56). Furthermore, both Phillips and Golland recite transducer arrays used to both send and receive rather than transmitting from a first transducer array and receiving echoes at a second single element transducer separate from and independent of the transmitter array. See, e.g., Phillips at Figs. 1 and 21; col. 3, lines 38-50 and 59-62; and col. 4, lines 17-25; and Golland at Figs. 1 and 5 and pg. 4, para. [0045].

The Examiner added the Bertora reference to address the claimed limitation of separate transmitters and receivers. However, the Applicant notes that while the Bertora reference does disclose the possibility of transmitter arrays and receiver arrays that may be separate or may be the same, Bertora discloses only arrays and not a single element transducer serving as a separate receiver. See, e.g., paragraphs [0039], [0041], [0042], and elements 101 to 801 of FIG. 7. Furthermore, the receiving transducer *array* of Bertora performs receive beamforming on the echo signals. See, e.g., paragraph [0049].

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For at least these reasons, the Applicant respectfully submits that claims 1, 6-11, and 13-16 should be allowable over the cited art of record.

Claims 2-5 and 17-21 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Philips in view of Golland, further in view of Bertora, and in further view of Stein (U.S. Pat. App. Pub. No. 2002/0100326). The Applicant traverses the Examiner's rejection for at least the following reasons.

As noted by the Examiner with respect to claims 2-5, neither Philips nor Golland teaches determining a position of a structure producing an encoded echo in response to impact based on a time of transmission or based on an angle of transmission. With respect to claims 17-21, the Examiner notes that neither Philips nor Golland teaches a processor for determining position of a scatterer based on a time of transmission or angle of transmission. As highlighted above, Bertora also fails to disclose a single element receive transducer receiving echo signals without beamforming. However, as Stein uses a transducer 44 for both transmitting and receiving, Stein does not cure the defects present in Philips, Golland, and Bertora with respect to the independent claims 1 and 10 from which claims 2-5 and 17-21 depend, respectively.

Thus, for at least these reasons, the Applicant respectfully submits that claims 2-5 and 17-21 should be allowable over the cited art.

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### CONCLUSION

It is submitted that the present application is in condition for allowance and a Notice of Allowability is respectfully solicited. If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of GTC, Account No. 070845.

Respectfully submitted,

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